

Remark

In response to the difficulty with entering the preliminary amendment, please find enclosed a marked up specification showing the desired changes, and a clean copy thereof.

In response to the misnumbering of claims, claim 83 has been cancelled and claims 85-107 have been renumbered 84-106.

Changes to obviate the section 112 rejections have been made. With respect to claim 80 and the objection to the lack of antecedent basis for "said scaled vector" appropriate terminology has been added to provide the necessary antecedent basis.

With respect to the obviousness rejection of claims 5 and 6, first the undersigned notes that Ricketts does not teach a **synchronous** code division multiplexed receiver as that technology is taught in the specification. Synchronous code division multiplexing requires a ranging process to be carried out in every remote unit transmitter. Ricketts does not disclose any ranging circuitry nor mention ranging or upstream frame synchronization. Claims 5 and 7 both require a synchronous code division multiplexed receiver which is completely absent from the prior art combination. It is not fair to suggest that a combination that does not include all the knowledge needed to make the invention suggests to one skilled in the art a likelihood of success in solving the problem the invention solves. This lack of suggestion negates obviousness. Further, a ranging circuit has been added to the transmitter which also is not suggested or taught in the prior art combination.

Claims 84, 85, 86, 87 and 95 have been rejected as obvious. In response, a ranging means limitation has been added to claim 84. This ranging means processes data received from remote unit modems to perform the ranging process to assist each remote unit modem in achieving upstream frame synchronization. Claims 85, 86, 87 and 95 all depend from claim 84 and are not obvious from the combination since the combination does not contain all the knowledge needed to make the invention and cannot therefore be said to suggest a likelihood of success to one skilled in the art of solving the problem the invention solves.

Claim 91 has been voluntarily amended to remove limitations made unnecessary by the addition to claim 84 and to add limitations that specify a cooperation between said

downstream transmitter and said ranging means to transmit data to the remote unit modems which help them achieve upstream frame synchronization. Similar voluntary amendments have been made to renumbered claim 93 for the same reasons.

Claims 97-100 and claim 104 have been rejected as obvious over Ricketts in view of Langewellpott. In response, claim 97 has had the following limitation added:

receiving said chips output by said demodulator and perform ranging detection to generate data to assist each remote unit modem to achieve precise upstream frame synchronization;

This process step is not taught in either of the cited references of the combination so it cannot fairly be said that the combination contains all the knowledge needed to solve the problem the claimed invention solved. As such, it cannot fairly be said to suggest to one skilled in the art a likelihood of success in solving the problem the invention solved, so the combination does not render claim 97 or any of its dependent claims obvious.

Claim 101 was voluntarily amended to remove limitations rendered unnecessary by the additions to claim 97 and to specify the cooperation of the steps of transmitting downstream ranging data and the step of processing upstream data transmitted by the remote unit modems for ranging.

Claim 104 was amended to add the following process step:

receiving upstream ranging data transmitted by each said remote unit modem, and performing ranging detection thereon to generate downstream ranging data for transmission to each remote unit modem to assist each remote unit modem to achieve precise upstream frame synchronization and transmitting said downstream ranging data developed for each remote unit modem to said remote unit modem;

This process step is similar to the process step added to claim 94 and therefore claim 104 is not obvious for the same reasons claim 94 is not obvious.

Claim 105 was rejected as obvious over Ricketts and Langewellpott in view of Gutleber. In response to this rejection, claim 105 was amended the following way:

~~any~~ transmitter means for receiving downstream data

intended for said remote unit modems and transmitting said downstream data to said remote unit modems using said master clock and said master carrier, said transmitter means including means for transmitting data encoding said master clock and said master carrier to all said remote unit modems on one or more radio frequency carriers in a first frequency band and for transmitting downstream ranging data to said remote unit modems;

a synchronous code division or synchronous time division multiplexed receiver means for receiving ranging transmissions transmitted by said remote unit modems and for generating downstream ranging data for transmission to said remote unit modems to assist them in achieving upstream frame synchronization and transmitting said downstream ranging data to said transmitter means for downstream transmission, and using at least said master clock and master carrier and preamble data transmitted by each said remote unit modem prior to transmission of upstream payload data to demodulate, demultiplex and recover upstream payload data transmitted by multiple remote unit modems where each ~~said~~ remote unit modem uses a recovered master clock on one or more carriers synchronized to a recovered version of said master carrier but frequency translated to a second frequency band that does not interfere with ~~said~~ a first frequency band in which said master carrier is transmitted, said remote unit modems transmitting simultaneously on said second frequency band using synchronous code division multiplexing or synchronous time division multiplexing to separate the upstream payload data transmitted by each remote unit modem.

These amendments add subject matter which is not present in the prior art combination, so it cannot be said that the prior art combination suggests to one skilled in the art a likelihood of success in solving the problem the claimed invention solves since not all the

knowledge necessary to solve the problem is present in the prior art combination.

Claim 106 depends from claim 105 and is not obvious for the same reasons.

Respectfully submitted,



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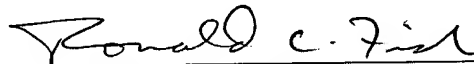
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